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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,783	11/13/2001	Itamar Willner	10980-16001	8069
20985	7590	01/18/2005	EXAMINER	
FISH & RICHARDSON, PC 12390 EL CAMINO REAL SAN DIEGO, CA 92130-2081			LU, FRANK WEI MIN	
			ART UNIT	PAPER NUMBER
			1634	
DATE MAILED: 01/18/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/857,783

Applicant(s)

WILLNER ET AL.

Examiner

Frank W Lu

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 06 January 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: see attached office action.

3. ☒ Applicant's reply has overcome the following rejection(s): the rejection under 35 USC 112, first paragraph.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: 32 and 33.

Claim(s) rejected: 1-9 and 23-31.

Claim(s) withdrawn from consideration: 12-22 and 34-43.

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***ADVISORY ACTION***

1. The proposed amendments filed on January 6, 2005 have been fully considered but will not be entered because they raise new issues that would require further consideration and/or search.

***Response to Arguments***

I. In page 7, third and fourth paragraphs of applicant's remarks, applicant argues that page 5, lines 23-25 and page 14, lines 3-12 of the specification support the limitation "by measuring insulation of the sensing interface to interfacial electron transfer between the sensing interface and the surrounding medium" as recited in claim 1.

After carefully considering applicant's arguments, the examiner agrees to withdraw this rejection.

II. In page 7, last paragraph of applicant's remarks, applicant argues that the amendment on claim 26 has overcome the rejection under 35 USC 112, second paragraph.

This argument has been fully considered but it is not persuasive toward the withdrawal of the rejection because applicant's argument with respect to claim 26 is moot since applicant has amended claim 26. The proposed amendment in claim 26 raises new issues that would require further consideration and/or search.

III. In page 8 of applicant's remarks, applicant argues that: (1) "[T]he methods of Blackburn employ an oligonucleotide that is linked to a[n] electron transfer moiety (ETM) such as ferrocene. The oligonucleotide is detected by measuring electron transfer between the ETM and the electrode-not between the surrounding medium and the electrode as suggested by the

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examiner”; and (2) “[N]o matter what method is used to measure electron transfer in Blackburn, it is electron transfer between the electron transfer between the ETM and the electrode that is measured, not electron transfer between the electrode and the surrounding medium”.

These arguments have been fully considered but they are not persuasive toward the withdrawal of the rejection. Since Blackburn *et al.*, teach detecting said ETM as an indicator of the presence of said target sequence (see column 141, claim 1) and insulators (such as resistance) is used to monitor electron transfer between ETM and the electrode (see column 92, fourth paragraph), and the measurement of insulators (such as resistance) must performed in or through the hybridization buffer containing ETM, Blackburn *et al.*, disclose detecting the presence of said verification oligonucleotide (ie., the target sequence) on the sensing interface by measuring insulation of the sensing interface (ie., surface of the electrode) to interfacial electron transfer between the sensing interface and the surrounding medium (ie., the hybridization buffer containing ETM) as recited in (e) of claim 1.

IV. In page 9 of applicant’s remarks, applicant argues that “Durst cannot anticipated any of claims 23-26, 28, 29, and 31”.

This argument has been fully considered but it is not persuasive toward the withdrawal of the rejection because applicant's argument with respect to claims 23-36, 28, 29, and 31 is moot since applicant has amended claim 23 by adding a phrase “by monitoring electron transfer resistance of the sensing interface”. The proposed amendments in claim 23 raises new issues that would require further consideration and/or search.

V. In page 10, second paragraph of applicant’s remarks, applicant argues that “[B]lackburn does not disclose a method that includes ‘measuring insulation of the sensing interface to

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interfacial electron transfer between the sensing interface and the surrounding medium' as required by claims 1 and 3".

This argument has been fully considered but it is not persuasive toward the withdrawal of the rejection because Blackburn *et al.*, do disclose a method that includes "measuring insulation of the sensing interface to interfacial electron transfer between the sensing interface and the surrounding medium" as required by claims 1 and 3 (see above Response to Arguments on III).

VI. In page 10, third and fourth paragraphs of applicant's remarks, applicant argues that Durst *et al.*, do not describe a method in which an oligonucleotide is bound to a sensing interface as required by claims 23, 27, and 30.

This argument has been fully considered but it is not persuasive toward the withdrawal of the rejection because applicant's argument with respect to claims 23, 27, and 30 is moot since applicant has amended claim 23 by adding a phrase "by monitoring electron transfer resistance of the sensing interface". The proposed amendments in claim 23 raises new issues that would require further consideration and/or search.

2. Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Group 1600 via the PTO Fax Center. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993)(See 37 CAR § 1.6(d)). The CM Fax Center number is (571) 273-8300.

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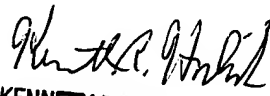
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Lu, Ph.D., whose telephone number is (571)272-0746.

The examiner can normally be reached on Monday-Friday from 9 A.M. to 5 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W. Gary Jones, can be reached on (571)273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Chemical Matrix receptionist whose telephone number is (703) 308-0196.

Frank Lu  
PSA  
January 11, 2005

  
KENNETH R. MORLICK, PH.D.  
PRIMARY EXAMINER

1/12/05